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Product datasheet for RC207539

Apc2 (ANAPC2) (NM_013366) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Apc2 (ANAPC2) (NM_013366) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Apc2
Synonyms:	APC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC207539 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCGGCAGTTGTGGTGGCGGAGGGGGACAGCGACTCCCGGCCCGGACAGGAGTTGTTAGTGGCCT
GGAACACCGTGAGCACCGGCCTGGTGCCGCCGGCTGCGCTGGGGCTGGTGTCTTCCCGGACCAGCGGTGC
AGTCCCGCCAAAGGAAGAGGAGCTCCGGGCGGCGGTGGAGGTTCTGAGGGGCCACGGGCTACACTCGGTC
CTGGAGGAGTGGTTCGTGGAGGTGCTGCAGAACGATCTGCAGGCCAACATCTCCCCTGAGTTCTGGAATG
CCATCTCCCAATGCGAGAACTCTGCGGATGAGCCCCAGTGCCTTTTGCTACTCCTTGACGCTTTTGGCCT
GCTGGAGAGCCGCCTGGATCCCTACCTGCGTAGCCTAGAGCTGCTGGAGAAATGGACTCGCCTGGGCTTG
CTGATGGGCACTGGTGCTCAGGGGCTGCGAGAAGAAGTCCACACTATGTTGCGCGGAGTCTTGTTCTTTA
GCACCCCCAGAACCTTCCAAGAGATGATCCAGCGTCTGTATGGGTGCTTCTTGAGAGTCTATATGCAGAG
TAAGAGGAAGGGGGAAGGGGGCACAGACCCGGAACTGGAAGGGGAGCTGGACAGCCGGTATGCCCGTCGC
CGGTACTACCGGCTCCTGCAGAGCCCGCTGTGTGCAGGGTGCAGCAGTGACAAGCAACAGTGCTGGTGTC
GCCAGGCTCTGGAGCAGTTCCATCAGCTCAGCCAGGTCTTACACAGGCTCAGTCTGCTGGAGCGGGTCAG
TGCCGAGGCTGTGACCACCACCCTGCACCAGGTGACCCGGGAGAGGATGGAGGACCGTTGCCGGGGCGAG
TACGAGCGCTCCTTCCTGCGTGAGTTCCACAAGTGGATCGAGCGGGTGGTCGGCTGGCTCGGCAAGGTGT
TCCTGCAGGACGGCCCCGCCAGGCCCGCATCTCCCGAGGCCGGCAACACCCTGCGCCGCTGGCGCTGCCA
CGTGCAAAGGTTCTTCTACCGCATCTACGCCAGCCTGCGCATCGAGGAGCTCTTCAGCATCGTCCGAGAC
TTCCCAGACTCCCGGCCAGCCATCGAGGACCTCAAGTACTGCCTGGAGAGGACGGACCAGAGGCAGCAGC
TGCTCGTGTCCCTCAAGGCTGCCCTGGAGACTCGGCTCCTGCATCCAGGCGTCAACACGTGTGACATCAT
CACCCTCTATATCTCTGCCATCAAGGCGCTGCGCGTGCTGGACCCTTCCATGGTCATCCTGGAGGTGGCC
TGTGAGCCTATCCGCCGCTACCTGAGGACGCGGGAGGACACAGTGCGGCAGATTGTGGCTGGGCTGACGG
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TCTTCATCAATGAGTACCGCTCGCTGCTGGCCGACCGCCTGCTGCACCAGTTCAGCTTCAGCCCCGAGCG
GGAGATCCGCAACGTGGAGCTGCTGAAGCTGCGCTTTGGCGAGGCCCCAATGCACTTCTGTGAAGTCATG
CTGAAGGACATGGCGGACTCCCGCCGCATCAATGCCAACATCCGGGAGGAGGATGAGAAGCGGCCAGCAG
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GAAGCTGGAGGTCCCCGAGGATATCAGGGCAGCCCTGGAGGCTTACTGCAAGAAGTATGAGCAGCTCAAG
GCCATGCGGACCCTCAGTTGGAAGCACACCCTGGGCCTGGTGACCATGGACGTGGAGCTGGCCGACCGCA
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GGGACAACATGGTGCTCATTGACAGTGACGACGAGAGCGACTCCGGCATGGCCTCCCAGGCCGACCAGAA
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GATCGTATCTACAACATGCTCCGCATGTTTGTGGTGACTGGGCCTGCACTGGCCGAGATTGACCTGCAGG
AGCTGCAGGGCTACCTGCAGAAGAAGGTGCGGGACCAGCAGCTCGTCTACTCGGCCGGCGTCTACCGCCT
GCCCAAGAACTGCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207539 protein sequence
Red=Cloning site Green=Tags(s)

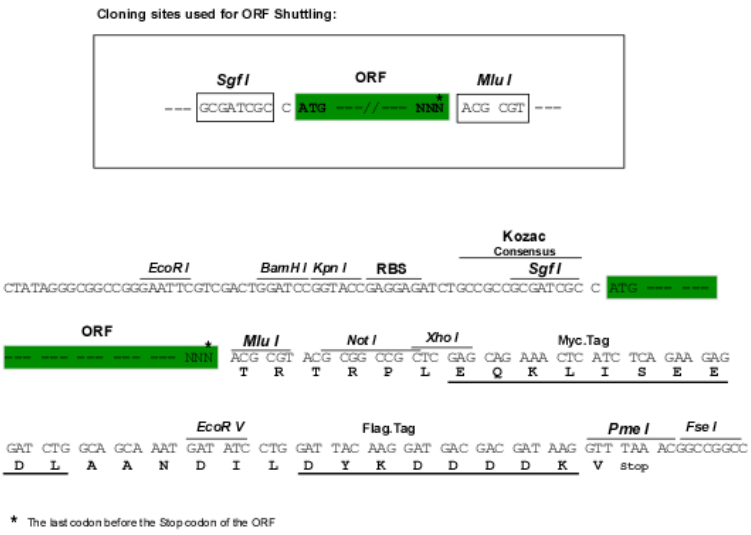
MAAAVVVAEGDSDSRPGQELLVAWNTVSTGLVPPAALGLVSSRTSGAVPPKEEELRAAVEVLRGHGLHSV
LEEWFVEVLQNDLQANISPEFWNAISQCENSADEPQCLLLLLDAFGLLESRLDPYLRSLELLEKWTRLGL
LMGTGAQGLREEVHTMLRGVLFFSTPRTFQEMIQRLYGCFLRVYMQSKRKGEGGTDPELEGELDSRYARR
RYYRLLQSPLCAGCSSDKQQCWCRQALEQFHQLSQVLHRLSLLERVSAEAVTTTLHQVTRERMEDRCRGE
YERSFLREFHKWIERVVGWLGKVFLQDGPARPASPEAGNTLRRWRCHVQRFFYRIYASLRIEELFSIVRD
FPDSRPAIEDLKYCLERTDQRQQLLVSLKAALETRLLHPGVNTCDIITLYISAIKALRVLDPSMVILEVA
CEPIRRYLRTREDTVRQIVAGLTGDSDGTGDLAVELSKTDPASLETGQDSEDDSGEPEDWVPDPVDADPG
KSSSKRRSSDIISLLVSIYGSKDLFINEYRSLLADRLLHQFSFSPEREIRNVELLKLRFGEAPMHFCEVM
LKDMADSRRINANIREEDEKRPAEEQPPFGVYAVILSSEFWPPFKDEKLEVPEDIRAALEAYCKKYEQLK
AMRTLSWKHTLGLVTMDVELADRTLSVAVTPVQAVILLYFQDQASWTLEELSKAVKMPVALLRRRMSVWL
QQGVLREEPPGTFSVIEEERPQDRDNMVLIDSDDESDSGMASQADQKEEELLLFWTYIQAMLTNLESLSL
DRIYNMLRMFVVTGPALAEIDLQELQGYLQKKVRDQQLVYSAGVYRLPKNCS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6202_e05.zip

Restriction Sites: SgfI-MluI

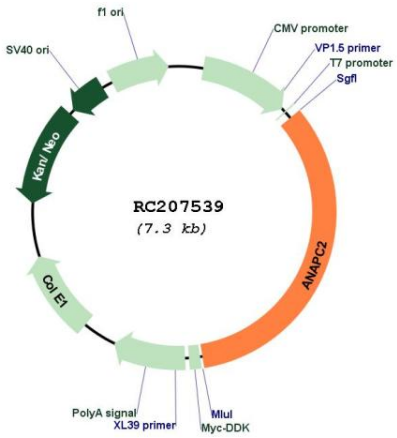
Cloning Scheme:



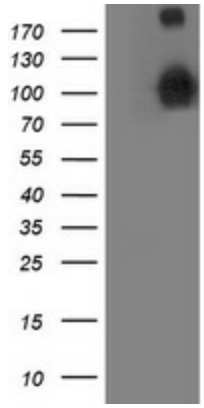
ACCN:	NM_013366
ORF Size:	2466 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_013366.4
RefSeq Size:	2733 bp
RefSeq ORF:	2469 bp
Locus ID:	29882
UniProt ID:	Q9UJX6
Cytogenetics:	9q34.3
Domains:	CULLIN
Protein Families:	Druggable Genome
Protein Pathways:	Cell cycle, Oocyte meiosis, Progesterone-mediated oocyte maturation, Ubiquitin mediated proteolysis
MW:	93.8 kDa
Gene Summary:	A large protein complex, termed the anaphase-promoting complex (APC), or the cyclosome, promotes metaphase-anaphase transition by ubiquitinating its specific substrates such as mitotic cyclins and anaphase inhibitor, which are subsequently degraded by the 26S proteasome. Biochemical studies have shown that the vertebrate APC contains eight subunits. The composition of the APC is highly conserved in organisms from yeast to humans. The product of this gene is a component of the complex and shares sequence similarity with a recently identified family of proteins called cullins, which may also be involved in ubiquitin-mediated degradation. [provided by RefSeq, Jul 2008]

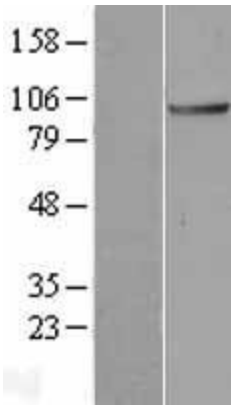
Product images:



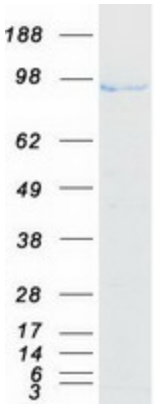
Circular map for RC207539



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ANAPC2 (Cat# RC207539, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ANAPC2(Cat# [TA503411]). Positive lysates [LY402247] (100ug) and [LC402247] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402247]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207539 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ANAPC2 protein (Cat# [TP307539]). The protein was produced from HEK293T cells transfected with ANAPC2 cDNA clone (Cat# RC207539) using MegaTran 2.0 (Cat# [TT210002]).